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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, PHUC H

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/916,200	Applicant(s) NORMAN ET AL.	
	Examiner PHUC H. TRAN	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 is/are allowed.
- 6) ☒ Claim(s) 1,24,26,34,35,42-50,73,86 and 87 is/are rejected.
- 7) ☒ Claim(s) 2-23,27-33,36-41,51-72 and 74-85 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/26/01,10/16/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

1. Claims 24, 86 and 87 are objected to because of the following informalities: claims should be rewritten to include other limitation of claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 24, 26, 34, 35, 42-50, 73, 86 and 87 are rejected under 35 U.S.C. 102(b) as being anticipated by Ayandeh (U.S. Patent No. 6069895).

- With respect to claims 1 and 24, Ayandeh teaches in a router connectable to a plurality of neighbor nodes (Fig. 4), the router having a plurality of memory units accessible via separate access paths (e.g. blocks 40, 48 in Fig. 2), a method of processing sets of routing information received from corresponding ones of the neighbor nodes comprising:

creating a plurality of non-identical routing information subsets from each received set of routing information (col. 1, lines 36-37; col. 2, lines 30-32; col. 5, lines 18-21);

accessing the memory units via the separate access paths (e.g. access path in fig. 2);

and storing the routing information subsets created from a common set of routing information in respective ones of the plurality of memory units (e.g. routing tables in Fig. 2).

- With respect to claim 26, Ayandeh teaches a router for use in a communications network, comprising:

a switch fabric having a plurality of communication ports (block 42 in Fig. 2);

a plurality of interfaces, each interface being connected to a corresponding communication port of the switch fabric and connectable to a corresponding neighbour node in the network, each interface being capable of receiving routing information from the corresponding neighbour node (e.g. block 40 in fig. 2);

a plurality of memory units, each accessible via a separate access path (routing table in Fig. 2), and

a control entity connected to the interfaces and to the plurality of memory units, the control entity being operable to create a plurality of non-identical routing information subsets from each received set of routing information and to cause the routing information subset created from a common set of routing information to be stored in respective ones of the plurality of memory units (e.g. block 46 in fig. 2).

- With respect to claim 34, Ayandeh teaches wherein the control entity is connected directly to each of the plurality of memory units, thereby to establish said separate access paths of the memory units (routing table in Fig. 2 with access paths).

- With respect to claim 35, Ayandeh teaches wherein the control entity is connected directly to each of the plurality of interfaces (e.g. control in fig. 2 for each interface, Fig. 1).

- With respect to claim 42, Ayandeh further teaches a plurality of interface cards wherein each of the plurality of interfaces is located on a corresponding one of the interface cards (block 48 in fig. 2);

and wherein each of the plurality of memory units is located on a corresponding one of the interface cards such that at least two of the interface cards contain different ones of the memory units (e.g. routing tables for each interface see Fig. 2 and 1).

- With respect to claim 43, Ayandeh discloses further comprising: a controller card (26 in Fig. 1); wherein the control entity is located on the controller card (46 in fig. 2).

-With respect to claim 44, Ayandeh further comprises: a plurality of controller cards; wherein each of the plurality on memory units is located on a corresponding one of the controller cards such that at least two of the controller cards contain different ones of the memory units (e.g. Fig. 1 shows controller for each tables).

-With respect to claim 45, Ayandeh discloses wherein the control entity is located on one of the controller cards (block 46 in Fig. 2).

-With respect to claim 46, Ayandeh discloses wherein the control entity is located on more than one of the controller cards (e.g. number controller in fig. 2).

-With respect to claim 47, Ayandeh further comprises: at least one interface card; wherein each interface is located on a corresponding one of the at least one interface card (e.g. interface 48 in Fig. 2).

-With respect to claim 48, Ayandeh also teaches wherein each received set of routing information includes a set of routes and wherein the control entity being operable to create a plurality of non-identical routing information subsets from each received set of routing information includes the control entity being adapted to create a plurality of non-identical subsets of routes from the set of routes in the received set of routing information (col. 1, lines 36-37; col. 2, lines 30-32; col. 5, lines 18-21).

-With respect to claim 49, Ayandeh teaches each route having a specificity, wherein the plurality of non-identical subsets of routes is created from the set of routes in the received set of routing information on the basis of the specificity of each route in the set of routes in the received set of routing information (col. 4, lines 52-60).

-With respect to claim 50, Ayandeh teaches wherein the control entity being operable to cause the routing information subsets created from a common set of routing information to be stored in respective ones of the plurality of memory units includes the control entity being adapted to cause each subset of routes created from a common set of routes to be stored in a respective one of the memory units associated with that subset (col. 4, lines 52-60; col. 7, lines 34-40; col. 5, lines 18-20).

- With respect to claims 73 and 86-87, Ayandeh teaches a method of distributing routing information among a plurality of memory units, the routing information including a plurality of routes, each route having a corresponding property, the method comprising:

associating at least one of the memory units with each route on the basis of said property of that route, at least one of the plurality of routes being associated with fewer than all of the memory units (e.g. Fig. 2 shows router and routing tables);

causing each route to be stored in each of the at least one memory unit associated with that prefix (e.g. Fig. 1 shows the storing of routing information).

Allowable Subject Matter

4. Claim 25 is allowed.

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5. Claims 2-23, 27-33, 36-41, 51-72 and 74-85 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Burnett (U.S. Patent No. 5703875) discloses integrated control and data message network.
- Civanlar et al. (U.S. Patent No. 6078963) discloses router with de-centralized processing using intelligent ports.
- Spiegel et al. (U.S. Patent No. 5649108) discloses combined progressive and source routing control for connection-oriented communications networks.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
6/12/05



DANG TON
PRIMARY EXAMINER